

Clinical and other Notes.

DISINFESTATION AT A DISPERSAL CAMP.

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As it might interest many readers of the JOURNAL OF THE ROYAL ARMY MEDICAL CORPS to know what measures, from a medical point of view, were adopted at the dispersal bases in France, for dealing with men on their demobilization, the following is a brief description of a dispersal camp, capable of dealing with 3,000 men arriving daily, and of the disinfestation arrangements, etc., which were in vogue in the camp.

For some months before the Armistice, preparations were made at several of the bases in France to establish special camps to deal with men on their demobilization. These camps, called dispersal camps, were arranged not only for the reception of demobilized men, but for their bathing, the disinfestation of their clothing, etc., and the completion of necessary documents, prior to their dispersal to the various centres in the United Kingdom.

The Dispersal Camp was divided into:—

(a) A reception division or "dirty" camp, to which all personnel for demobilization arrive from the detraining station, and

(b) Three Despatch Divisions, or "clean" camps, to which men are transferred, after passing through the "dirty" camp, and from which they proceed for embarkation.

Each of these camps was capable of accommodating 3,000 men, the men passing, after bathing and disinfestation at the "dirty" camp, to one of the "clean" camps, to ensure that they were not re-infested.

As the length of stay of a man in the Dispersal Camp was four days, including the days of arrival and departure, the necessity of three "clean" camps will be shown by the following table, in which it is assumed that men begin to arrive on a Monday, and are not embarked until Thursday, and that it was not possible to pass more than 1,000 through the "dirty" camp on the day of arrival.

	Arrivals	Bathed, etc., and passed to clean camp	Remaining at dirty camp	Arrivals at clean camps			Departures	Remaining
				A	B	C		
Monday ..	3,000	1,000	2,000	1,000	1,000
Tuesday ..	3,000	3,000	2,000	3,000	1,000	4,000
Wednesday ..	3,000	3,000	2,000	3,000	3,000	1,000	..	7,000
Thursday ..	3,000	3,000	2,000	1,000	3,000	3,000	3,000	7,000
Friday ..	3,000	3,000	2,000	3,000	1,000	3,000	3,000	7,000

It will be noted that with the arrival of 3,000 men daily, there will not be less than 2,000 in the "dirty" camp, or more than 7,000 in the "clean" camp, if the embarkation is working smoothly.

At the Reception Division, a disinfestation station was established at which

the man was bathed, and his uniform disinfested, and where he was issued with clean underclothing. This service was largely a medical one, as it was essential that precautions should be taken to ensure that every man proceeded home "vermin-free" to prevent his conveying lice-borne fever to those at home.

To carry out the bathing and disinfestation of several thousand men per day was a big undertaking. At first, a scheme was drawn up, providing for this by means of Manlove and Alliott's disinfectors. The scheme was designed to disinfect the whole of the man's kit and equipment, as well as his underclothing and the towels used, and to bath the men in parties of fifty every ten minutes. This scheme was not adopted, however, being replaced by a general scheme made applicable to all Bases, which included hot air disinfestation by means of a chamber designed by Major Orr, Canadian Army Medical Corps, a description of which is given later.

GENERAL SCHEME.

Attached is a plan of the Bathing and General Disinfestation Station at the Reception Camp. This station was planned to deal with 3,000 men per day by means of four delousing plants. The medical arrangements were under a senior officer, who had at his disposal ten medical officers. Sufficient sanitary personnel, under a sanitary officer, was also posted to the camp. The duty of the medical officers in the camp was to examine every man passing through so as to give him a vermin-free certificate. Anyone suffering from skin or other complaints requiring immediate treatment was detained and sent to hospital to receive such treatment before being allowed to proceed to England.

In order to avoid any unnecessary exposure of the men during the process of disinfestation, medical inspection, and bathing, and in view of the fact that the bath-houses and annexes were merely corrugated iron structures, and therefore extremely cold, the following additional measures were taken, and the original plan was modified accordingly:—

(1) The entrance passage leading to the undressing room was fitted with double doors, the inner one being provided with a blanket screen to keep out draughts:—

(2) A large stove was placed at the end of the passage at the junction of the exit from the undressing room into the medical inspection room, two large stoves in the drying room, and three in both dressing and undressing rooms.

(3) The medical inspection room, enclosed with wooden partitions extending to the roof, was lighted by a skylight, and the room in which the clerks and barbers worked was arranged so as to open out of it.

(4) Lateral walls were built running from the disinfestation chamber to the main building, so as to prevent cold air blowing under or through the main doors.

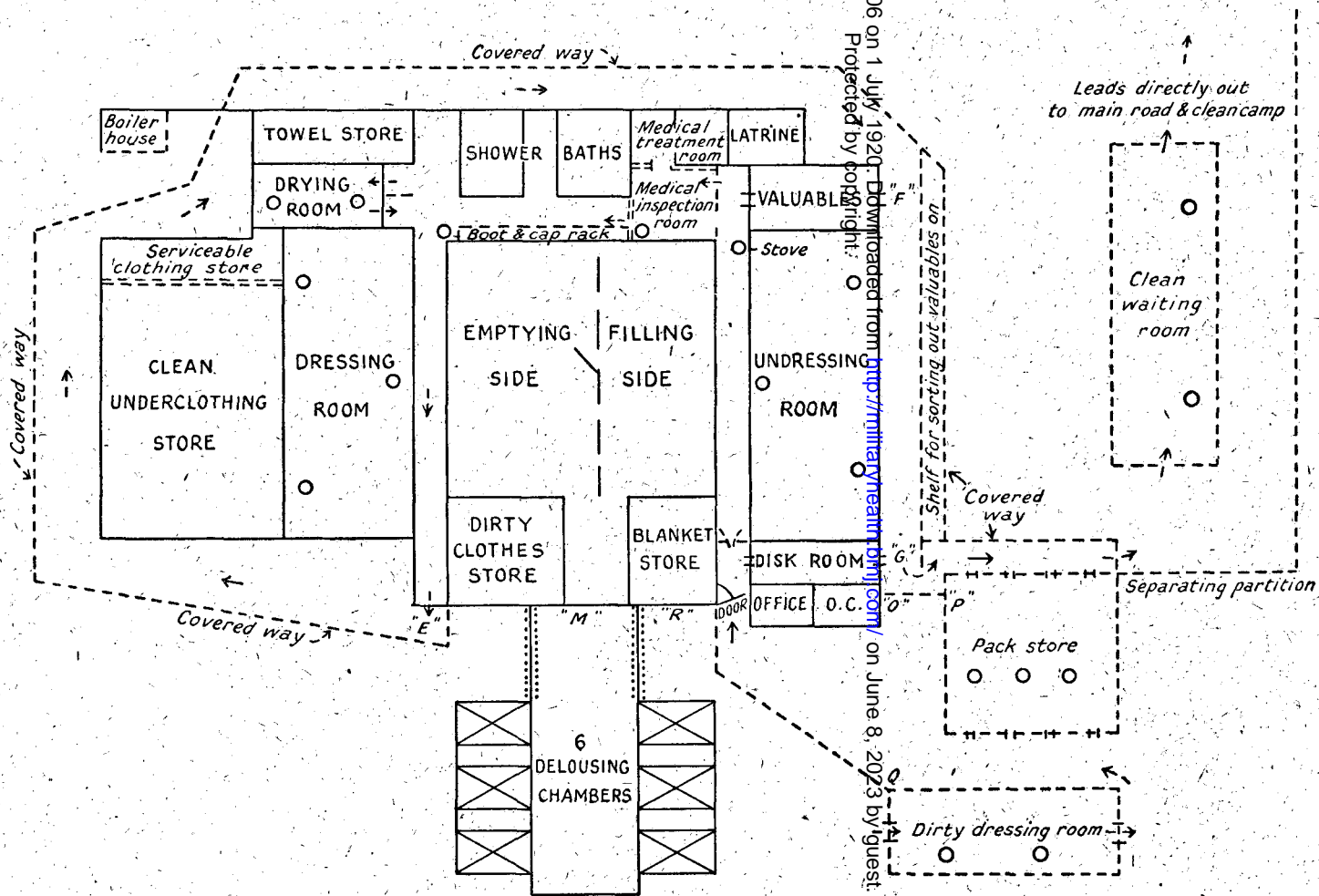
(5) The walls of all partitions round the central hall and those of the drying room were carried up to the roof, so as to keep the building warm by excluding cold air from the different rooms.

(6) A covered way was built round the outside of the main building so as to protect the men from the weather on their exit and during their progress to the "valuables" room, disk room, and pack store.

(7) The main building was heated by additional stoves.

These additions to the original plan proved very effective in preventing the

DIAGRAM OF CENTRAL DELOUSING AND BATHING STATION, ST. MARTIN CAMP, BOULOGNE BASE,
AS ACTUALLY FUNCTIONING FEBRUARY, 1919.



Note.—Dotted lines indicate corrugated iron walls. ○ = Stoves;

men from being unduly exposed to cold, and were mainly responsible for the fact that no serious illness could in any way be attributed to exposure during their demobilization.

METHOD OF PROCEDURE FOR DISINFESTATION AND BATHING.

The men are dealt with in parties of 200, fully clothed and equipped, and in order to hasten the process inside the building, each party unlaces their boots and remove their putties whilst waiting in the "dirty" waiting room.

(1) They leave their rifles and equipment in the pack store hut outside the main building, and in exchange receive a numbered disk, a second disk with the same number being attached to the equipment. With the first disk round their necks, they pass to the entrance of the main building where they receive from the issuing window in the disk room (a) a "valuable" bag with numbered disk, and (b) another disk for attachment to their coat-hooks, these disks bearing the same number as the disk they receive at the pack store; they then proceed to the undressing room, which has numbered seats. Each man proceeds to the seat corresponding to the number on his disk, and there finds a coat-hook. He then places his valuables, watch, etc., in his "valuable" bag and ties the other disk securely to the coat-hook. He then hangs his service dress on to the coat-hook, his dirty underclothing being collected and taken to the dirty clothing store. Coats and trousers are turned inside out before being hung on the coat hangers, so as to expose the seams.

(2) The coat-hooks bearing each man's service dress clothing are then sent on trollies to the disinfector. As stated above, the disinfestation plant was designed by Major Orr, C.A.M.C. It consists of six chambers, into which the clothing trucks are run on rails; each chamber has a definite capacity and is divided into:—

(a) The stoking room, which is below ground, and measures at its roof 14 feet 4 inches by 7 feet 6 inches, at its floor level 10 feet by 5 feet 2 inches, and is 5 feet in height. The floor of the stoking room is of cement, on which are placed two braziers.

(b) The delousing chamber, which measures 15 feet by 8 feet 2 inches and is 5 feet 8 inches in height. Each delousing chamber has six 4-inch outlet pipes, and two stoking chambers have one 8-inch by 4-inch inlet pipe under each brazier. The floor of the delousing chamber is made of corrugated iron, perforated by 128 holes measuring 6 inches by 3 inches, and supports the rails on which the truck runs. Thirty-two service dress suits can be placed on each clothing truck and disinfested. With properly fitting doors, the heat attained ensures the thorough disinfestation of all garments in a few minutes. The average time for the clothes to remain in this chamber is twenty minutes, which is more than sufficient.

(3) Each man then proceeds along the corridor to the valuables receiving hatch, where the canvas valuables bags are handed in.

(4) They then enter the medical inspection room situated next to the bathroom, and the men are thoroughly examined by expert medical officers. Men suffering from either venereal or skin diseases are allowed to proceed with their bathing, but their names and "valuable" disks are taken, so that they may be collected

afterwards and dispatched to hospital. To ensure complete freedom from vermin a large number of the men have been shaved (but of course this may somewhat delay the delousing, and calls for a large number of expert barbers who are not always available). The shaving is not compulsory, but few men when found to have nits are averse to it; this becomes a large service when one takes into consideration the fact that at least twenty-five per cent of the men are found to have nits.

(5) After medical inspection, the men deposit their caps, leggings and boots, in special racks, and take their places under the shower baths.

(6) After the bath, the men proceed to the towel issuing store, and having received a clean towel enter the drying room.

(7) On leaving the drying room, a medical orderly sees that all men who have been shaved are given an ointment of twenty-five per cent hyd. ammon. to apply to the affected parts. The men then take their caps and boots and proceed to the dressing room.

(8) On reaching the dressing room, each man occupies the seat bearing his number, and draws from the nearest window of the clothing store a clean suit of underclothing, consisting of shirt, vest, pants and socks. He then waits until the attendant brings him his coat-hook bearing his garments which have passed through the disinfestation chamber.

(9) On completing their toilet, the men pass out of the building, leaving their coat-hooks above their seats, so that they may be collected by the attendant, and hand in their dirty towels as they pass the dirty towel store.

(10) On leaving the building, the men carry with them their equipment disks hung around their necks, and their clothing disks, and proceed round the building under the covered way to the issuing hatch of the valuable room, where on showing their equipment disks the valuables bags with attached disks of the same number are returned to them.

(11) The men then sort out and replace their valuables in their pockets, and hand in their clothing disks and valuables bags at the receiving window of the disk room.

(12) The party then receive their rifles and equipment in exchange for the equipment disks, and are marched off to the dispatch division.

This scheme has been found to work excellently, for as soon as the attendants know their duties, perfect order is ensured, and a continual stream of men can pass without confusion.

In order to ensure that every man had passed through the disinfestation station, at the commencement of demobilization a second medical inspection was carried out at the "clean" camp before vermin and scabies-free certificates were given, but as practically no men were found verminous, this inspection was discontinued.

In the above scheme no provision is made for the disinfestation of the spare underclothing in the packs of men passing through; this matter was discussed, but at first it was found very difficult to treat such clothing or to issue clean clothing in lieu. Orders were therefore issued to ensure that no such underclothing remained in the possession of the men. Later, when the arrangements were working smoothly, articles of clothing carried in the packs were

replaced by clean ones, and by this means the possibility of reinfestation was removed.

The above is a brief description of the medical arrangements to deal with men demobilized at a base, and although a few complaints came from England, stating that occasionally some men were found to arrive in a verminous condition, it is not certain that these men had passed through the central disinfestation station. Considering the large numbers passing through daily, it is, of course, quite impossible to guarantee that everyone is vermin-free, but there is no doubt that the above scheme has worked most efficiently and successfully. The two main factors in obtaining satisfactory results are (a) a thorough medical inspection and treatment, and (b) the maintenance of a sufficiently high temperature in the disinfestation chamber. If these are properly attended to, it can be assured that each man is clean, and his service dress thoroughly vermin-free.

IMMEDIATE SUTURE OF THE ULNAR NERVE AND DELAYED SUTURE OF THE ELBOW JOINT.

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THIS patient was admitted to the Surgical Division (Alexandra Hospital, Cosham), on April 29, 1918, in the forenoon. The field medical card contained the following statement:—

“Large foul wound of elbow, involving left humerus and ulna. Ulnar nerve cut. Wound excised and cleaned, comminuted olecranon removed. Divided ends of ulnar nerve brought together by holding suture. Iodoform paraffin dressing. Interrupted elbow splint. (Signed) R. Brown, Captain, R.A.M.C., April 25, 1918.

Personal History: In front of Amiens his unit was advancing when a “whiz-bang” shell exploded just behind him, followed by loss of power in the arm, which fell to his side. He had a sickening, stinging pain. Operation in 45th Casualty Clearing Station the same day, about four hours later.

On arrival here the wound was examined. The whole posterior surface of the elbow joint was exposed. There was some discharge which, when removed, showed a fairly healthy muscle surface, some pus along the fascial planes. The joint surfaces were separated by iodoform paraffin pack, the splint was an interrupted Esmarch, and the joint was at a right angle. The fractured stump of the olecranon was visible in the wound, also the exposed and guttered posterior surface of the humerus. On examination the gauze could not be removed from between the joint surfaces without a general anæsthetic. As a result the wound was washed with C.D. fluid, dried and B.I.P.'ed and the splint reapplied.

April 30, 1918: Robert Jones shoulder splint prepared, and with the assistance of Captain G. E. Thornton, R.A.M.C., general anæsthetic was given. The whole surfaces were cleaned up, washed with C.D. fluid, swabbed with Harrington's solution, dried and B.I.P.'ed.

- (1) The synovial membrane was brought together and sutured where possible.
- (2) The tendon of the triceps was released on the deep surface from the